# MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY TITLE V OPERATING PERMIT TECHNICAL REVIEW DOCUMENT

**Permitting and Compliance Division** Air and Waste Management Bureau 1520 E. Sixth Avenue P.O. Box 200901 Helena, Montana 59620-0901

Williston Basin Interstate Pipeline Company Little Beaver Compressor Station 951 #<del>7</del> Baker, MT 59313

The following table summarizes the testing, monitoring, and reporting requirements applicable to this facility:

Facility Compliance Requirements	Yes	No	Comments
Source Tests Required	X		Method 7E, Method 9, Method 10, Method 19
Ambient Monitoring Required		X	
COMS Required		X	
CEMS Required		X	
Schedule of Compliance Required		X	
Annual Compliance Certification and Semi-annual-Reporting Required	X		As applicable
Monthly Reporting Required		X	
Quarterly Reporting Required		X	
Applicable Air Quality Programs			
ARM Subchapter 7 Montana Air Quality Permitting	X		Permit #2741-01
New Source Performance Standards (NSPS)		X	
National Emission Standards for Hazardous Air Pollutants (NESHAPS)		X	Except for 40 CFR 61 Subpart M
Maximum Achievable Control Technology (MACT)		X	
Major New Source Review (NSR)		X	
Prevention of Significant Deterioration (PSD)		X	
Risk Management Plan Required (RMP)		X	
Acid Rain Title IV		X	
State Implementation Plan (SIP)	X		General SIP

OP2741-01 1

# TABLE OF CONTENTS

I.	GENEI	RAL INFORMATION	3
	A.	Purpose	3
	B.	Facility Location	3
	C.	Facility Background Information	3
	D.	Current Permit Action	4
	E.	Taking and Damaging Analysis	4
	F.	Compliance Designation:	4
II.	SUMM	ARY OF EMISSION UNITS	5
	A.	Facility Process Description	
	B.	Emission Units and Pollution Control Device Identification	5
	C.	Categorically Insignificant Sources/Activities	5
III.	PERMI	T TERMS	
	A.	Emission Limits and Standards	6
	В.	Monitoring Requirements	6
	C.	Test Methods and Procedures	6
	D.	Recordkeeping Requirements	6
	E.	Reporting Requirements	7
	F.	Public Notice	7
	G.	Draft Permit Comments	7
	H.	EPA Comments	7
IV.		APPLICABLE REQUIREMENTS ANALYSIS	
V.	FUTUF	RE PERMIT CONSIDERATIONS	9
	A.	MACT Standards:	9
	B.	NESHAP Standards:	9
	C.	NSPS Standards:	9
	D.	Risk Management Plan:	9

#### I. **GENERAL INFORMATION**

#### A. **Purpose**

This document establishes the basis for the decisions made regarding the applicable requirements, monitoring plan, and compliance status of emission units affected by the operating permit proposed for this facility. The document is intended for reference during review of the proposed permit by the Environmental Protection Agency (EPA) and the public. It is also intended to provide background information not included in the operating permit and to document issues that may become important during modifications or renewals of the operating permit. Conclusions in this document are based on information provided in the original operating permit application submitted by Williston Basin Interstate Pipeline Company (WBI) and received by the Department on June 12, 1996, and the renewal application submitted on November 1, 2002.

#### В. **Facility Location**

WBI owns and operates the Little Beaver Compressor Station. This facility is located in the NE<sup>1</sup>/<sub>4</sub> of Section 19, Township 4 North, Range 62 East, in Fallon County, Montana. Fallon County is designated as an Unclassifiable/Attainment area for National Ambient Air Quality Standards (NAAQS) for all criteria pollutants. The Little Beaver Compressor Station is located in a remote area 22 miles southeast of Baker, Montana. The adjacent land is used for grain cropland and rangeland, as well as a developed oil and gas field. The nearest residents are WBI employee housing located adjacent to the facility.

### C. **Facility Background Information**

The Little Beaver Compressor Station was constructed by the Montana Dakota Utilities Company, WBI's predecessor, in 1936. This facility originally had five 190-horsepower (hp) Ingersoll-Rand engines with two 300-hp Ingersoll-Rand engines being added in 1939. In 1952 the 190-hp Waukesha generator engine was installed. One 440-hp engine was added in 1954, and the ninth compressor engine, an 880-hp Ingersoll-Rand, was added in 1962.

WBI was issued preconstruction Permit #2741-00 in 1992, which allowed WBI to install the dehydration unit used to remove water from the natural gas. The permit was issued for the operation of the Little Beaver Compressor Station; which included nine engines, one generator engine, a dehydration unit, and the miscellaneous heaters, boilers, and fugitive Volatile Organic Compound (VOC) sources. The engines at Little Beaver did not require testing.

On October 15, 1996, the Department of Environmental Quality (Department) received a preconstruction permit application for additions that were proposed for the Little Beaver Compressor Station Permit #2741-00. The final Permit #2741-01 was issued on February 1, 1997, for the addition of source EU10, an 1,100-hp Superior 8GTLE lean burn natural gas compressor engine. Also the permit required the installation of control equipment on source EU9, the 880-hp Ingersoll-Rand engine and increased stack heights on all ten existing engines at the facility.

Operating Permit OP2471-00 was issued final and effective May 1, 1998.

OP2741-01 3 Date of Decision: 05/21/03

#### D. **Current Permit Action**

The current permit action is a renewal of WBI's Title V Operating Permit #2741-00 for the Little Beaver Compressor Station. WBI's Operating Permit OP2741-00 is applicable for 5 years and expires May 1, 2003. Operating Permit OP2741-01 replaces Operating Permit OP2741-00.

#### Ε. **Taking and Damaging Analysis**

HB 311, the Montana Private Property Assessment Act, requires analysis of every proposed state agency administrative rule, policy, permit condition or permit denial, pertaining to an environmental matter, to determine whether the state action constitutes a taking or damaging of private real property that requires compensation under the Montana or U.S. Constitution. As part of issuing an operating permit, the Department is required to complete a Taking and Damaging Checklist. As required by 2-10-101 through 105, Montana Code Annotated (MCA), the Department has conducted a private property taking and damaging assessment and has determined there are no taking or damaging implications. The checklist was completed on January 23, 2003.

#### F. **Compliance Designation:**

On May 24, 2001, the Department inspected the WBI Little Beaver Compressor Station. The inspection findings and all the material reviewed in the Department's files indicated that the facility is in compliance with the limits and conditions of the Montana Air Quality Permit #2741-01 and Title V Operating Permit OP2471-00 at the time of inspection. Through source testing by EPA Methods 7E, 9, 10, and 19 both EU9 and EU10 have successfully demonstrated compliance.

# **Summary of the November 30, 2001 Emissions Tests**

Source	NO <sub>x</sub> (lb/hr) Method 7E	CO (lb/hr) Method 10
EU9	2.93	NA
Limit	5.82	NA
EU10	0.30	5.29
Limit	4.85	7.28

WBI (Marty Ulrich) Tested By:

Limits: Montana Air Quality Permit #2741-01, Title V Operating Permit OP2471-00

EU10 VOC Limit: Testing not required Nitrogen Oxides  $NO_x$ CO Carbon Monoxide lb/hr Pounds per hour

OP2741-01 Date of Decision: 05/21/03 4

#### II. **SUMMARY OF EMISSION UNITS**

## **Facility Process Description** A.

The Little Beaver Compressor Station serves as a natural gas pipeline compressor station. Natural gas gathered from fields in the Baker, Montana, area is compressed at the Little Beaver station. The compressed gas is then routed to a WBI facility at Belle Fourche, South Dakota. The Standard Industrial Classification (SIC) for this facility is "Natural Gas Transmission" which has an SIC Code of "4922".

#### В. **Emission Units and Pollution Control Device Identification**

Currently, the Little Beaver Compressor Station has one 880-hp Ingersoll-Rand engine and a 1,100-hp Superior engine. Nitrogen Oxides (NO<sub>x</sub>) emissions from the 880-hp Ingersoll-Rand will be controlled with a non-selective catalytic reduction (NSCR) unit and an air/fuel ratio (AFR) controller with the installation of the 1,100-hp Superior engine. NO<sub>x</sub> and Carbon Monoxide (CO) emissions from the 1,100-hp Superior engine will be controlled with a lean burn package and an AFR controller, while VOC emissions are minimized by burning pipeline quality natural gas in these engines.

#### C. **Categorically Insignificant Sources/Activities**

The Administrative Rules of Montana (ARM) 17.8.1201(22)(a) states that if an emitting unit has an applicable requirement, then it is not an insignificant emitting unit; therefore, the facility has no insignificant emitting units at this time.

OP2741-01 5 Date of Decision: 05/21/03

#### III. PERMIT TERMS

#### A. **Emission Limits and Standards**

Emission limits for the 880-hp Ingersoll-Rand engine were established under the authority of ARM 17.8.749 and the emission limits for the 1,100-hp Superior engine were established by a Best Available Control Technology (BACT) determination under the authority of ARM 17.8.752. The 880-hp Ingersoll-Rand engine has an emission limit of 5.82 lb/hr NO<sub>x</sub>. The 1,100-hp Superior engine has an emission limit of 4.85 lb/hr NO<sub>x</sub>, 7.28 lb/hr CO, and 2.43 lb/hr VOC.

The emission units at this facility are not subject to any current MACT, NESHAP, or NSPS. This facility is not subject to PSD regulations.

### В. **Monitoring Requirements**

ARM 17.8.1212(1) requires that all monitoring and analysis procedures or test methods required under applicable requirements are contained in operating permits. In addition, when the applicable requirement does not require periodic testing or monitoring, periodic monitoring must be prescribed that is sufficient to yield reliable data from the relevant time period that is representative of the source's compliance with the permit.

The requirements for testing, monitoring, recordkeeping, reporting, and compliance certification sufficient to assure compliance does not require the permit to impose the same level of rigor for all emissions units. Furthermore, it does not require extensive testing or monitoring to assure compliance with the applicable requirements for emissions units that do not have significant potential to violate emission limitations or other requirements under normal operating conditions. When compliance with the underlying applicable requirement for a insignificant emissions unit is not threatened by lack of regular monitoring and when periodic testing or monitoring is not otherwise required by the applicable requirement, the status quo (i.e., no monitoring) will meet the requirements of ARM 17.8.1212(1). Therefore, the permit does not include monitoring for insignificant emission units.

The permit includes periodic monitoring or recordkeeping for each applicable requirement. The information obtained from the monitoring and recordkeeping will be used by the permittee to periodically certify compliance with the emission limits and standards. However, the Department may request additional testing to determine compliance with the emission limits and standards.

#### C. **Test Methods and Procedures**

The operating permit may not require testing for all sources if routine monitoring is used to determine compliance, but the Department has the authority to require testing if deemed necessary to determine compliance with an emission limit or standard. In addition, the permittee may elect to voluntarily conduct compliance testing to confirm its compliance status.

#### D. **Recordkeeping Requirements**

The permittee is required to keep all records listed in the operating permit as a permanent business record for at least 5 years following the date of the generation of the record.

OP2741-01 Date of Decision: 05/21/03 6

### Ε. **Reporting Requirements**

Reporting requirements are included in the permit for each emissions unit and Section V of the operating permit "General Conditions" explains the reporting requirements. However, the permittee is required to submit semi-annual and annual monitoring reports to the Department and to annually certify compliance with the applicable requirements contained in the permit. The reports must include a list of all emission limit and monitoring deviations, the reason for any deviation, and the corrective action taken as a result of any deviation.

#### F. **Public Notice**

In accordance with ARM 17.8.1232, a public notice was published in *The Fallon County Times* newspaper on or before March 3, 2003. The Department provided a 30-day public comment period from March 3, 2003, to April 2, 2003, on the draft-operating permit. ARM 17.8.1232 required the Department to keep a record of both comments and issues raised during the public participation process. The comments and issues received by April 2, 2003, will be summarized, along with the Departmental response, in the following tables. Furthermore, all comments received during the public comment period will be forwarded to WBI so that they may had an opportunity to respond to these comments as well.

# **Summary of Public Comments**

Identity of Commenter	Comment	Department Response
No Comments		

#### G. **Draft Permit Comments**

# **Summary of Permittee Comments**

Permit Location	Permittee Comment	Department Response
No Comments		

#### H. **EPA Comments**

# **Summary of EPA Comments**

Permit Location	EPA Comment	Department Response
No Comments		

OP2741-01 7 Date of Decision: 05/21/03

## NON-APPLICABLE REQUIREMENTS ANALYSIS IV.

Section IV of the operating permit "Non-applicable Requirements" contains the requirements that the Department determined were non-applicable. The following table summarizes the requirements that WBI identified as non-applicable and contains the reasons that the Department did not include these requirements as non-applicable in the permit.

# Requirement not Identified in the Operating Permit

Applicable Requirement	Reason
40 CFR 61, Subpart M National Emissions Standards for Hazardous Air Pollutants - Asbestos	This is a federal regulation that has specific procedural requirements that may become relevant to the major source during the permit term.

OP2741-01 8 Date of Decision: 05/21/03

## **FUTURE PERMIT CONSIDERATIONS** V.

#### A. **MACT Standards:**

As of the issuance date of OP2741-01, the Department is unaware of any future MACT Standards that may be promulgated that will affect this facility.

#### B. **NESHAP Standards:**

As of the issuance date of OP2741-01, the Department is unaware of any future NESHAP Standards that may be promulgated that will affect this facility.

#### C. **NSPS Standards:**

As of the issuance date of OP2741-01, the Department is unaware of any future NSPS Standards that may be promulgated that will affect this facility.

### D. Risk Management Plan:

As of the issuance date of OP2741-01, this facility does not have any substance listed in 40 CFR 68.115 or 40 CFR 68.130, which exceeds the minimum threshold quantities. Also, this facility is subject to DOT regulations for accidental release prevention; consequently, this facility is not required to submit a Risk Management Plan.

OP2741-01 9 Date of Decision: 05/21/03